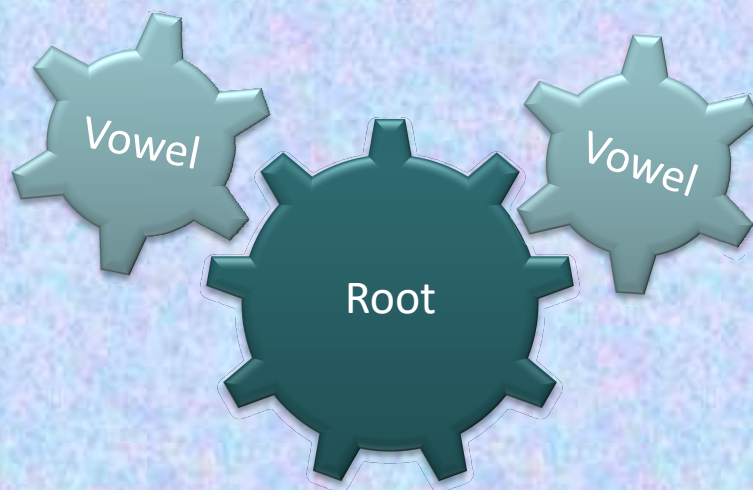


A.P. MARYUKHIN

EVOLUTIONARY
TYPOLOGY OF LANGUAGES:
SEMITIC AS EXAMPLE



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Dedicated to Prof. Yudakin A.P.

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INTRODUCTION

Language evolution is a process of language development within the culture and history. It differs from simple language classification according to morphological, genealogical or areal types. This process may be described by the formulas used for every language group.

Languages are called “isolated” if they consist of unchangeable and unseparated sound-meanings: Chinese, Burmese, etc. The formula for the words of these languages is R. This formula extends up to $R' + R$, $R' + R + R'$, $R + R'$. A root and a word are indifferent, the root does not change; there are no relation-sounds actually, and the accent plays a large role.

Languages are called “structural” if they add to unchangeable sounds a value by means of different lexical tools. Such languages are 1) Altai, subdivided on Finnish (Lappish, Finnish, Estonian, Karelian), Ugrian or Yugra (Vogul, Magyar, Ostyat, Votyat, Mordvin, Zyrian, Samoyed), and Turkish-Tatar (Ottoman, Yakut, Tungus, Chuvash), 2) Mongolian and Mandzhurian, and 3) Dravidian in Industan. A formula for words can be only of such types: pR, Rs, R_i, pR_i, R_is, pRs, pR_is. Here for example the Turkish word *sev-in-iş-e-me-mek* consists of the root *sov* meaning “to love, to please” and five sound-relations following it – *iş* – ‘reciprocity’, *e* – ‘ability’, *me* – ‘denials’, *mek* – ‘an uncertain inclination’: the whole word means “not to be able to love each other”, and its formula is Rs because under *s*, *p*, *i* it is possible to mean one or several suffixes, prefixes and infixes.

Languages combining a simple and a structural form belong to the African languages of the Bantu group, Coptic (only descendant of ancient Egyptian), Tibetan, Gascon or language of Basques, languages of aborigens. The formula for the words of these languages can be a set of types – $R + pR$, $pR' + R$, $pR' + pR$, $pR' + R$, $R + pR'$.

Languages are called “inflectional” if they originally enable to change the meaning of a root. So, in the Russian word *pit'* the syllable of *pi-* is a root, and *t'* is a sound of the relation, not a final inclination; but the word *pit'* has the same root with the word *poit'* which consists of three components *poj*, *i*, *t'*.

A bright example of evolutionary processes in language one can easily trace in Grimm’s laws. So, Mr Stepanov discovered interesting facts by comparing numbers of Fibonacci with Grimm’s laws. As known, Mr Grimm firstly formulated consonant law between IE, German and High German languages (dialects). Mr Grimm analysed Latin, Old Greek, and Sanskrit (in the table he put only Greek), adding Gothic instead of German. This law is called “first consonant shifting”. The relation between German and Old German is called then “second consonant shifting”.

Table 1

Greek	P	T F	T	D TH	K	G	CH	
Gothic	F	P B	TH	T D	CH	K	G	
Old High German	B(V)	F P	D	Z T	G	CH	K	

Grimm's table is represented as a model in the form of a matrix. Its content is described through letters A, M, T: M – mediae (b, d, g), T – tenues (p, t, k), A – aspiratae. Later Mr Prokosh extended Grimm's model. He tried to introduce the whole range of phonetic changes. By dental sounds, it looks like $t > t' > \text{þ} > \theta > \delta > d > t$.

Table 2

I	Old German	θ (-dh) > δ – Greek 'θύρα': German '*ðurā' (Engl. 'door')
II	German	BC – $t > t' > \text{þ}$ – Latin 'trēs': Gothic 'Þreis', English 'three'
III	German	Verner's law – $\text{þ} > \delta$ – Greek 'πατήρ': Gothic 'faðar'
IV	German	$d > t$ – Latin 'edō': Gothic 'itan', English 'eat'
V	Intermediate Stage	$\delta > d$ – German '*ðurā' – Gothic 'daur'; Gothic 'faðar'; Old English 'faeder'
VI	Old High German	$t > -$ Gothic 'itan': Old High German 'en'
VII	Old High German	$d > > (> t)$ – Gothic 'daur': Old High German 'dor', 'tor'
VIII	"German"	$\text{þ} > p$ – Gothic 'Þreis': Old High German 'dhrī'
IX	"German"	$\delta > d$ – Old High German 'dhrī' > 'drī'

Evolutionary model of a language is also a linear model, which predicts the occurrence of grammar categories. It was firstly introduced by Russian linguist Prof. Yudakin. After having discussed the advantages of this model with the author, I concluded that it mostly reflects genealogical and morphological classification of languages. Yet it stays separately and offers more clarity on understanding language processes. Main points are summarized by me below.

I. Samoyedic and Finno-Ugric languages

Samoyedic languages: Nenets → Enets → Nganasan → Selkup

Ugric languages: Khanty → Mansy → Hungarian

Volga languages: Erzya → Moksha → Komi-Zyrian → Komi-Permyak → Udmurt → Mari

Main processes from left to right are a) the transition from a verbal to the verbal-nominal structure; b) the appearance of personal possessive forms of nouns; c) the subject-objective conjunction (or objectless conjunction); d) the personal indefinite verbal forms as the opposition to the personal conjunction in the Active Voice.

II. Baltic-Finnish languages

Lappish → Veps → Izhora → Finnish → Karelian → Lappish → Votic → Estonian

Main processes from left to right are a) the penetration of copula into participial complex and thus the appearance of analytical forms; b) the substitution of personal forms of nouns by personal pronouns in Genitive; c) the substitution of subject-objective conjunction by nominative structure; d) the transition from indefinite forms of the Active Voice to active-passive forms.

III. Dardish languages

Central part: Khovar → Kalasha → Tirakhi → Pashan → Shumashti → Votapuri → Govar

Eastern part: Kashmiri → Pkhaluri → Shina → Garvi → Bashkarik → Kanyavali → Torvali

Western part: Kati → Ashkun → Prasun → Vaiyali → Dameli

Main process: the shift of copula

IV. Ibero-Caucasian languages

Abkhaz-Adyghe and Nakhs languages: Abkhaz → Abazin → Chechen → Ingush → Batsbi

Main processes from left to right are a) the development of conjunctive class, the transition from binominal category of “man-thing” to conjunctive class; b) the transition to four-case system of conjunction; c) the appearance of simple sentences instead of one indefinite construction; d) the disappearance of category of possession and the appearance of personal pronouns in Genitive.

V. Avarian and Andi languages

Avarian → Karata → Bagvali → Tindi → Chamali → Godoberi → Andi → Botlikh → Akhvakh

Main processes from left to right are a) the transition from conjunctive class to personal conjunction; b) the synthese of copula and the appearance of Present Simple; c) the disappearance of Past Simple indicator; d) Genitive of personal pronouns instead of possessive pronouns.

VI. Tsez languages

Tsez → Khvarshi → Ginukh → Bezhti → Gunzib → Laki → Dargi

Main processes from left to right are a) the development of conjunctive class; b) the development of secondary synthetical forms of Tenses; c) the suffix derivation of adjectives from other parts of speech; d) the appearance of short forms of adjectives in function of a predicate.

VII. Lezghin and Georgian languages

Budukh → Khinalug → Kryz → Tsakhur → Archi → Rutul → Agul → Lezghin → Tabasaran → Udi → Svan → Zan → Georgian

Main processes from left to right are a) the transition from abstract conjunctive class to personal conjunction; b) the indistinguishability of nominative, ergative and dative cases by personal pronouns; c) the appearance of Passive Voice.

In this book, I introduced Semitic languages in their evolution. I followed traditional aspects and those challenges which appeared during my work. I kindly express my gratitude to the Krupskaya Scientific Library in Astrakhan.

I

LANGUAGE DEVELOPMENT: COMMON ASPECTS

§ 1. Structure of a language. Since linguistics is an independent science, linguists empirically or unconsciously use the evolutionary method in their research.

In the natural sciences, primarily in biology, the recognition of the development of an organic system implies a structural approach to the object. Indeed, if a system develops, it goes through a number of stages (levels), at which the result of the previous continuous development is fixed in certain discrete units. Consequently, the developing system must be structurally organized, and its complication is reflected in the complication of its structural organization.

Despite the irrefutable fact that the structural organization of a phenomenon (here: language) not only does not exclude, but, on the contrary, presupposes its development, for the consciousness of linguists, the structure of language and its development are phenomena not only of different orders, but also excluding each other. The incorrectness of this conclusion is so obvious that the majority of linguists are forced to talk about development in the language, excluding the development of the language.

The application of the evolutionary method in linguistic research is associated with a number of theoretical and practical difficulties. The problems arising in this case can be reduced to three points: 1) the sphere of action of evolutionary processes (the problem of level interaction); 2) the direction of linguistic development (the question of whether the change in the morphological type of languages is arbitrary or whether it is associated with the improvement of the technique of linguistic expression and corresponds to certain changes at the level of thinking); 3) the explanation of the mechanism of language changes.

§ 2. Recognition of the language evolution. Depending on the choice of the definition of language, a scientist divides evolutionary process of language on the definition “language is a means of communication” and “language as a form of thinking”. The external factor associated with the functioning of language in society is decisive in relation to the intrastructural one. Any changes in the language are directly related to one or another socio-economic formation, i.e. the social function of language is absolutized to the limit, while language changes are socially conditioned insofar as language cannot arise and develop outside of society.

The intralinguistic (intrastructural) factor of language development is not completely independent of the external (extralinguistic, social) factor. The latter affects the processes of differentiation and integration of languages, the nature and scope of their social functions; it can affect the intrastructural development of language only indirectly, through thinking.

Back in the XIXth century, linguistics has developed a number of techniques for the study of languages. Mr Bopp not only advocated the recognition of the internal laws of language development, but also, with his agglutinative theory as a whole, satisfactorily explained one of the mechanisms of linguistic changes (maybe even the evolution of a language). Another researcher, Mr Schleicher, noting the unity of the glottogonic process, showed importance to external factors of language development, and first of all paid attention to the significant role of linguistic contacts in the general development of the language.

§ 3. Two solutions to the problem of the relationship between language and thinking. An extreme solution to the problem of the relationship between language and thinking is the theory of linguistic relativity by American ethnolinguists such as Mr Sapir and Mr Whorf. This theory is reduced not only to the recognition of the active role of language in the process of cognition, but also to the assertion of language as the determining essence in relation to thinking. It follows that both the nature of thinking, and the conceptual foundation, and philosophical systems depend on what the language of verbal communication is: whether it is isolative, agglutinative, inflectional, and polysynthetic (incorporating). According to this theory, for a native Russian speaker, categories of thinking, such as space and time, have a different scope than that of an American Indian, or a representative of the African continent. But if we accept this thesis, it is necessary to prove, firstly, that the scope of the categories of thinking among different peoples is really different, and, secondly, it is necessary to explain the reasons for the categorical discrepancies.

§ 4. Language as a means of knowing reality. Language is a changing system. The main purpose of the language is to ensure mutual understanding in society, to make it possible to transfer experience from generation to generation. But the identity of experience cannot be due to the simple fact that the evolution of living organisms is based on the variability of species. The individual and the collective, in order to survive, exchange acquired experience, which is supplemented by hereditary experience. Consequently, having arisen as a means of realizing thinking, language under the pressure of vital necessity is becoming an instrument for cognizing reality. The language is favored by a change in the level of cultural and economic development of society. The growth of material and spiritual culture, the improvement of artistic skills and the technical performance of cultural values contributed to the fact that a person passes from the slavish imitation of reality through its creative assimilation in cultural works to the knowledge of his transforming activity and, therefore, indirectly to the knowledge of the laws of thinking. If in the animal kingdom the accumulation of experience in mastering reality is carried out with the help of the senses (sensory cognition), in humans the experience acquired with the help of the senses is verified and supplemented through conceptual thinking with the emergence of various forms of social consciousness, the process of cognition and its increasing ramification – cognition of the external world

and cognition aimed at the subject itself (self-knowledge). Language, perhaps, is one of the means of self-knowledge, since language and thinking are interconnected.

§ 5. Correlation of categories of language and categories of thinking. The question of linguistic categories – grammatical classes of words – is not as simple and trivial as it sometimes seems at first glance. There is a widespread belief that all languages of the world have the same parts of speech. Even in terms of traditional descriptive grammar, it can be shown that, in a historical perspective, the volume and ratio of linguistic categories in the same language or a group of related languages constantly change. If we take into account that the categories of thinking also do not remain constant, it is easy to come to the conclusion about the dialectics of categories of language and categories of thinking, which means that some categories of a particular linguistic category may not find correspondence at the level of thinking in a similar thinking category. The logic of things requires extending this position in the opposite direction, since the categories of thinking are more meaningful due to the law of the incessant movement of the cognitive process from the concrete to the abstract and then from the abstract to the concrete, which is dictated by the continuity of man's cognition of objective reality.

Errors associated with the verbs *to be* and *to have*, we attribute to the competence of language and thinking, because the verbs *to be* and *to have* are the components on the basis of which some important grammatical categories are formed: categories of tense, belonging, etc. A foreign language learner gets used to constructions of this type with great expenditure of time and effort.

<i>Turkish</i>	(benim) kitabim var		bende kitap var
<i>Arabic</i>	li kitabun	indi kitabun	ma'ai kitabun

Comparing the examples of Turkish, Arabic and Russian languages, we are convinced that the Russian word *est'* contains a whole range of meanings; in it (historically) there are various grammatical categories; more precisely, it can take part in the formation of various grammatical categories. Comparison with the Arabic and especially the Turkish example from the third column (*ben-de*) shows that the threads lead from the verb with the meaning *is* to the category of space-time; comparison with the examples of the first column shows that the verb of being participates in the formation of a subcategory (a category of quality), which can serve as a stage in the formation of possessive pronouns. These provide an example of the grammatical manifestation of the mental categories of space-time and quality. On the other hand, since the verb of being takes part in the formation of the main categories of the adjective as a part of speech, it can play a certain role in updating the content of the quality category as a mental category. And, finally, based on these examples, we can say that, probably, at the level of thinking there are no connections, thanks to which the category of quality can be manifested in Russian through the verb *to have*, although the language system allows the formation of constructions like *I have* (*I have a brother, I have something to say*, etc.), used with a purely expressive coloring or as an anomaly of the language. Consequently, the categories of thinking do not represent something homogeneous, indivisible, permanent (otherwise their

development would be impossible), and, apparently, it makes sense to talk about a spectrum (maybe even better – about a discrete spectrum) of mental categories.

According to the discrete spectrum, the categories of thinking – each separately and among themselves – form numerous connections, the ratios of which can change in connection with the appearance in the language of new categories (subcategories); new connections can arise within a category and between categories, replacing or strengthening old ones.

§ 6. Scope of evolutionary processes in language. It would seem that it could be simpler to assert that evolutionary processes are carried out at all levels of the language. Moreover, comparative-historical linguistics fixes changes that occur both in vocabulary and phonetics, and in the grammar of a particular language or group of languages. But after all, changes are different: as far as we know, no one has yet convincingly proved that changes occurring at different levels of the language are interrelated and interdependent and predominantly unidirectional.

When it comes to the evolution of a language and the degree of its progress, in order to substantiate this thesis, researchers draw on examples from the field of vocabulary and, I must say, reach a certain agreement in their views. The views of researchers diverge radically if one needs to turn to grammar: some scholars, distorting the dialectical connection between language and thinking, exaggerate the influence of language on thinking (American ethnolinguistics); others, making a reservation that the structural features of a language do not indicate the degree of its development, replace the thesis about the evolution of language with the problem of the connection between language and society.

First of all, it should be said that the facts from the field of vocabulary can hardly indicate the evolution of the language and the degree of its development. The vocabulary reflects the ways of civilization progress. It is indisputable that the quantitative growth of the vocabulary of the language is accompanied by qualitative shifts in the entire vocabulary, and this is expressed in an increase in the ability of words to convey the thoughts and feelings of people speaking this language. But can we assert that Mr Einstein in his own language could more accurately express feelings and thoughts, as well as scientific and philosophical views, than Confucius, Plato or Newton? Apparently not. Therefore, if we try to solve the problem of language development on the basis of vocabulary, we will face a dilemma: whether to oppose the categories of language to categories of thinking or to replace the thesis about the development of language with the problem of the connection between language and society.

It should not be overlooked that the vocabulary of a particular language is a thesaurus of meanings that can be increased almost continuously by internal linguistic resources: for example, internal inflection in Arabic, tone system in Chinese, etc. But the ability of the lexicon to convey the content of our thoughts is mainly increased due to its functioning in the language according to certain rules fixed by the grammar of the language. Many languages that have a small lexical fund have a more ramified system of grammatical categories than some transnational languages: the poverty of

vocabulary is balanced by the richness of the grammatical system (for example, the Aranta language in Australia, the Papuan languages).

Changes occur at all levels of the language. The word as a unit of language and speech fixes phonetic, lexical and structural changes that language and speech undergo in the process of communication. These changes can reduce the word to the level of an affix morpheme with an abstract grammatical meaning: Eng. *full* 'full of something', but *beautiful* (lit. *full of beauty*), where the morpheme *-ful* denotes a characteristic inherent in it. In turn, affixal morphemes are involved in the formation of words and concepts, sometimes merging with the root morpheme to such an extent that only a thorough linguistic analysis helps to detect it in the composition of the word: cf. Russian *shylo*, *mylo*, where *-l-* is a suffix. Prepositions and postpositions (syntax) give rise to the case system of nouns (morphology); and vice versa, the disappearance of the declension paradigm expands the functions of prepositions and postpositions, etc. The disappearance of old and the appearance of new categories of words is primarily strictly motivated by internal semantic connections (for example, the closeness of the meanings of the word *full* and the morpheme *-ful*). These changes are unlikely to contribute to the restructuring of the language system. On the contrary, they themselves are a consequence of some, not always known to us, transformations in the language.

It goes without saying that a change in the semantics of small categories of words (for example, adjectives with the corresponding affixes: English *beauti-ful*, *plenti-ful*) depends on the semantics of the larger categories of words (the presence or formation of the category of qualitative adjectives), and the change in their semantics is associated with the status 'grammatical category' (adjective as part of speech).

Studying the conditions for the emergence of analytical tenses, the formation of an adverb as a part of speech and the dynamics of the degrees of comparison of adjectives, we came to the conclusion that the verb *to be* is one of the linguistic universals and that a change in its semantics is accompanied by the formation of new grammatical categories. It is likely that both phenomena are linked by causal relationships. It is not hard to see that we are trying to solve the key problem of the science of language – the problem of its evolution – taking into account the changes are at all levels of the language (including the syntax of simple and complex sentences), with a primary focus on the semantics of grammatical categories.

§7. Evolutionary method and substantiation of the structure-typological similarity of languages in diachrony. It is well known that attempts to substantiate the material relationship of IE and non-IE languages do not always lead to success. And to be precise, the research carried out in this direction often causes doubts and skepticism among the reader, rather than the conviction of the legitimacy of such conclusions.

The efforts of the father of comparative historical linguistics Mr Bopp, as well as the followers of the laryngeal theory and the founders of the comparative grammar of the Nostratic languages contributed to the fact that a number (maybe even a system) of phonetic correspondences was derived for recalculation from one

phonological system to another. It seems premature to say that the relationship of IE and non-IE languages has now been proven, that a good basis has been created for further search work.

Humboldt's typological-universal teaching has given rise to two fruitful hypotheses: 1) about diachronic universals as a set of rules for universal metalanguage of grammar and 2) about possible diachronic coincidence or similarity of structures of languages of different types. Having formulated two main characteristics of language – language as a means of communication and language as a form of realization of thinking – Mr Humboldt was one of the first to state the inextricable connection between language and thinking. Humboldt's absolutization of the role of language in the process of cognition is continued in some idealistic concepts of language (Sapir-Whorf's hypothesis), but, on the other hand, it is hardly legitimate to belittle the role of language in the development of objective activity.

We will give several examples from various languages of the world, without trying to assert their relationship and admitting the possibility of accidental similarities in the development of certain phenomena of these languages. The examples are deliberately taken from languages, the relationship of which is not mentioned even by the Nostratic theory.

1) In Akkadian, the noun in the predicative state changed like a verb, more precisely, like a permansive of denominative verbs. The personal endings of the verb, as well as the endings of the permansive, are modified personal pronouns (in the table, the corresponding personal pronouns are given).

The role of pronouns in the formation of predicative forms of the Akkadian language

Table 3

Sing., Pers.	1 st general	šarr – āku	anāku	I, I am a king
	2 nd male	šarr – āta	atta (<*anta)	you
	2 nd female	šarr – āti	atti (<*anti)	you
	3 rd male	šarr	šū	he
	3 rd female	šarr – at	šī	she

2) In Indonesian languages, the category of belonging is formed by using the corresponding modified personal pronouns placed after the noun: Indon. *saudaraku* 'my friend' (*saudara* 'comrade' + *aku* 'I'); *saudaramu* 'your comrade' (from *kamu* 'you'), etc. Possessive pronominal suffixes in Indonesian languages:

Table 4

Sing.	1st Person	2nd Person	3rd Person
Old Javanic	-ku	-ta	-nya
Javanic	-ku	-mu	-e
Indonesian	-ku	mu(kau)	nya
	Etc.		

For comparison, let us take only Sing., since Pl. in different languages appears later and develops independently. It is undesirable to involve the third person in

comparison, since it is not always the third person of a pronoun takes part in the formation of verb tenses and the category of possessiveness. It should also be noted that on the basis of personal pronouns in some Indonesian languages, a personal verb conjugation develops: Indon. *ku-batja*, *kau-batja*; Javan. *dak-watja*, *ko-watja* 'I'm reading, you are reading'.

The comparison shows that the endings of the Akkadian permansive are similar to the endings of the possessive category in the Old Javanese language in the 1st and 2nd Pers. Sing.; the similarity in the 1st person is found in all other Indonesian languages (in Malgash, Tagalog, the Ilokan suffix *-ko*).

Of course, we will not eliminate the moment of chance in the formation of grammatical categories, but it takes a considerable period of time, which to some extent excludes arbitrariness. But if we still try to justify the kinship of these different language families, we must first of all explain the typology in diachrony, namely: the material similarity in the formation of the Akkadian permansive or name in the predicative state (*šarr-āku*) and the Present Tense in the Indonesian language (*ku-batja*).

On the other hand, an accidental external material similarity has not to be beyond scientific comparative method. So, it is completely inappropriate to include the Abkhazian *sara* 'I' and the Indonesian *saja*, which has the same meaning, in one pronoun system and draw far-reaching conclusions, since we have no basis for comparison here (the Indonesian *saja* 'I' comes from the word *sahaja* 'servant', therefore etymologically Abkhazian *sara* and Indonesian *saja* are completely different).

The number of examples pointing to more than just random structural similarities could be greatly increased. And sooner or later the kinship if not all then most of the world's languages will be established.

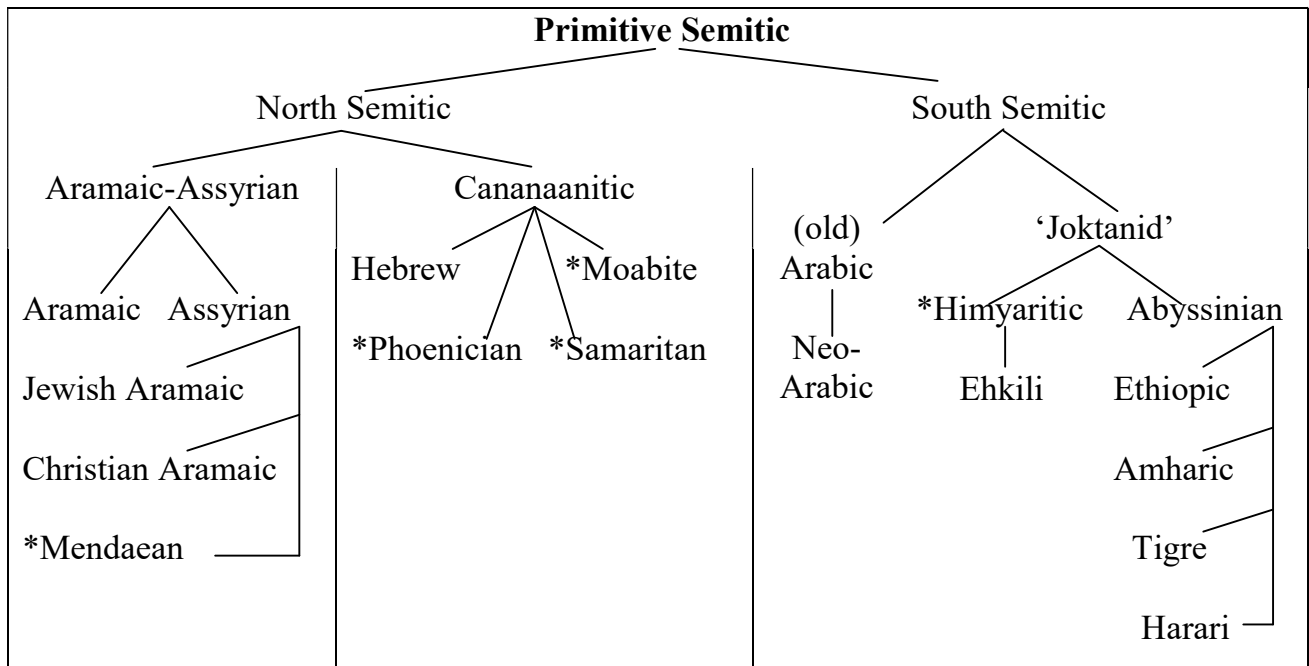
II LANGUAGE DEVELOPMENT: SEMITIC AS EXAMPLE

§ 1. Classification. The word “Semitic” goes back to the Hebrew “sem” and signifies a sign, a name or Arabic “ism”. Semitic languages firstly followed to IE languages in structure have stopped in the middle of its development. They differ, especially in roots. The roots consisting of three consonants were simple in the beginning, and it is proved by the comparison of all language roots.

Semitic languages are distinguished by a wealth of sounds, guttural and aspirated. And here certain rules of euphony are observed, for example, the confluence of two related initial consonants is avoided, even when they are separated by a vowel. So, *r* and *l* cannot be together as the first two consonants in the root.

Under Semitic languages, one embraces separated languages divided into five main groups: 1) Babylon-Assyrian, 2) Aramaic, 3) Cananaanitic, 4) Arabic, 5) Ethiopic.

Table 5



§ 2. Scripture and sounds. The oldest scriptures of the Semitic language are Babylon-Assyrian scriptures with 18 consonants and 3(4) vowels. All the other Semitic languages have a scripture system of 22 consonants, i.e. the Phoenician alphabet (Mesa-Inscripts, Old Aramaic, South Arabic scriptures).

Old Semitic

	a	p	b	k	t	h	v	u	zh	hh	t	i	k
Hieroglyphic.....													
Hieratic.....													
Old Semitic.....													
	א	ב	ג	ד	ה	ו	ז	ח	ט	י	כ	ל	מ
	l	m	n	s		p	t	q	r	sh	t		
Hieroglyphic.....													
Hieratic.....													
Old Semitic.....													

Modern Semitic

Table 6

א	Alef	Alpha	'	ל	Lamed	Lambda	l
ב	Bet	Beta	b	מ,ם	Mem	My	m
ג	Gimel	Gamma	g	נ,ן	Nun	Ny	n
ד	Dalet	Delta	d	ס	Samek	Sigma	s
ה	He	E	h	ע	Ajin	O	‘, ġ
ו	Waw	Bau	w	פ,ף	Pe	Pi	p
ז	Zajin	Zeta	z	צ,ץ	Sade	-	š
ח	Het	Eta	ḥ	ק	Qof	Koppa	q
ט	Tet	Theta	t	ר	Reš	Rho	r
י	Jod	Yota	j	ש	Šin	San	ś, š
כ,ך	Kaf	Kappa	k	ת	Taw	Tau	t

§ 3. **Phonology.** There are some generalities for the phonologic systems of all Semito-Hamitic languages:

1. Ternary groups of consonants: with sound, “emphatic” and soundless. A part of “emphatic” consonants is lost in Egyptian and almost in New Semitic, however their full loss is not observed. Even in Egyptian, the consonant *q* remained along with *g* and *k*.

2. Existence of pharyngeal fricatives: [‘] and the soundless *ḥ*. They are also lost in many New Semito-Hamitic languages, however in any case their traces can be revealed in all branches.

3. Permanent functioning of non-syllabic *u* and *i* in a morphological role of consonants.

4. Lack of affricates.

In Semitic languages, the phonologic system of consonants has the fullest form as following:

1. Labial	m	b	ḅ	p
2. Blade	n	d	ṭ	t
3. Blade	-	z	ṣ	s
4. Interdental	-	ḏ	ṯ	Ṫ
5. Sonor (two-focused)	-	r	š	š
6. Lateral	-	l	ś	ś
7. Velar	-	g	ḵ	k
8. Uvular	-	γ	-	ḥ
9. Pharyngeal	-	‘	-	ḥ
10. Laryngeal	-	’	-	h

§ 4. Structure of a root. In all classic manuals about Semitology, a root consists of consonants while vowels transmit a grammar and lexical meanings. This is taken for granted with some exceptions. Only in Arabic which despite the archaism of phonologic system is historically more advanced than other Semitic languages, internal flections really penetrate all dictionary structure.

The concept expressed by a root has an absolute character, i.e. it does not express any relations to other concepts. In so-called “amorphous” languages, such as Chinese, the root and a cognate word usually coincide. The same concerns agglutinative languages. In inflectional languages of IE type the root mostly represents something fluid, changeable. It seems that more we move away from “amorphous” languages in which the root performs in a full form (with preservation of all its consonants and vowels), the more it becomes shapeless, and the variability of its elements increases. If we take such words as Russian *pisat’* or German *schreiben*, we will find it difficult to tell at once where there is a root. Does it mean that in inflectional languages of IE type the root is not reality in the sense mentioned above? Of course, not. The mixture with grammatical tools merely complicates a root. But Mladogrammaticians who were not paying enough attention to genetic questions announced a root “an abstraction”. After Mr Curtius (1820-1885), they claimed that roots are “only naked abstractions or auxiliary designs for scientific use”.

The “sociological school” in the face of its founder Mr Saussure rehabilitated a root, having proclaimed that “a root represents reality for speakers”. The root as a conceptual monad represents reality not only in “amorphous” and agglutinative languages, but also in inflectional IE type though in the last it performs with less obvious distinctness.

And how is the situation with a root in Semitic languages? If to qualify a root as a word which is not complicated by morphological indicators, then such a word without vowels would be impossible. Most likely, it were extremely short, poorly differentiated vowels deprived of independent quality, but sufficient for fluent identification of root consonants. Such vowels remained as reduced vowels in the so-

called Imperfect in all Arabic dialects. At this stage of development, the root in Semitic languages little differed from a root in IE.

The three-consonant-root was one of the ways of differentiation. In Semitic languages where such situation was established very early, the habit of native speakers to associate a lexical meaning of a word with a root with three consonants created such strong reflexes that it was no need in other detectors any more.

In IE languages, a root which could not be a model belonging to unrationed number of consonants needed vowels from the very beginning. The model would not be implemented if the root may contain alternatively vowels. The logic of development of this model of a root in inflectional languages was based on the principle “either/or”: either the root contains vowels – and then definiteness of number of the consonants making its frame has no value – or it is without vowels, and then the number of consonants has to be strictly certain.

Rössler-Greenberg’s Reconstruction of Proto-Semitic Forms

Table 7

Recon- struction	yV-C ₁ C ₂ VC ₃	yV- C ₁ C ₂ VC ₃ -u	yV- C _{1a} C ₂ C ₂ VC ₃	C _{1a} C _{2i} C ₃ -	C _{1a} C _{2u} C ₃ -	C _{1a} C _{2a} C ₃ -
Akkadian	<i>i-prus</i> (‘he broke’ Old Preterit) <i>li-prus</i> (‘let him brake’ Jussive)	<i>i-prus-u</i> (‘who broke’ Old Preterit)	<i>i-parras</i> (‘he brakes’, ‘he will brake’ Old Presence)	<i>paris</i> (‘he is broken’- Stative)	<i>maruṣ</i> (‘he is sick’ Stative)	<i>rapaṣ</i> (‘he is wide’ Stative)
Geza	<i>yə-ngər</i> (‘let him say’ Jussive)	-	<i>yə-naggər</i> (‘he is speaking’ Old Imperfect)	<i>gabr-a</i> (‘he is speaking’ Old Imperfect)		<i>nagar-a</i> (‘he has said’ New Perfect)
Arabic	<i>ya-ktub</i> (‘let him write’ Jussive)	<i>ya-ktub-u</i> (‘he writes’, ‘he will write’ New Imperfect)	-	<i>kabur-a</i> (‘he was large’ New Imperfect)		<i>katab-a</i> (‘he has written’ New Perfect)

Not all phenomena like morphs may be put into this classification. So, in the Semito-Hamitic family of languages (Arabic, Hebrew, etc.) the typical roots are as follows: in each root there are three constants (so-called “solid”) bearing material value *per se*; between consonants there are variable elements – the vowels bearing grammatical meanings (compare the table below).

Table 8

	Prefix	Prefix	Root	Interfix	Suffix	Suffix	Suffix	Flexion
Russian			<i>kofe</i>	<i>j</i>	<i>n</i>			<i>yi</i>
		<i>ob</i>	<i>igr</i>		<i>yva</i>		<i>e</i>	<i>t</i>
		<i>ob</i>	<i>ram</i>	<i>l</i>	<i>en</i>	<i>i</i>		<i>e</i>
	<i>o</i>	<i>bes</i>	<i>tsen</i>		<i>en</i>	<i>i</i>		<i>e</i>
	<i>o</i>	<i>bes</i>	<i>tsen</i>	<i>iva</i>	<i>n</i>	<i>i</i>		<i>e</i>
English	<i>mis</i>	<i>dis</i>	<i>agree</i>			<i>abl(e)</i>	<i>y</i>	
		<i>in</i>	<i>form</i>	<i>a</i>	<i>tion</i>	<i>abl(e)</i>		
		<i>un</i>	<i>object(t)</i>		<i>tion</i>			
Latin		<i>con</i>	<i>vi-n-c</i>		<i>e</i>			<i>re</i>
			<i>vic</i>		<i>tor</i>			
Lituanian			<i>bu-n-d</i>					<i>a</i>
		<i>pa</i>	<i>bud</i>					<i>o</i>
Kazakh			<i>ara</i>					
			<i>ara</i>		<i>lar</i>			
			<i>ara</i>		<i>lar</i>	<i>ga</i>		
Arabic			<i>k-t-b</i>					
			<i>katab</i>					
			<i>katib</i>					
			<i>kitab</i>					
			<i>kutub</i>					
			<i>maktab</i>					

§ 5. **Signs of deixis.** The signs of deixis from the sphere of location may be intertwined with anaphora – a sign from the syntactic sphere of predication. Mr Benveniste has shown that to each stem of an IE indicative pronoun, which is characterized by a “strong” meaning, a stressed form, the presence of a thematic vowel, subordination to case, gender and number, we can oppose the stem of an anaphoric indicator, characterized by “weak” meaning, unstressed enclitic position, presence of the vowel *-i-* and invariable form, irrespective of gender and number. The fullest series of anaphoric particles is presented by Old Prussian and the Old Persian languages (see Table).

Paradigm of the Anaphoric Particle (after Benveniste)

Table 9

General IE series			Old Prussian series	
IE Pronoun	Anaphora	Language		
*e/o	im	Indo-Iranian	Acc. sing. masc. <i>din</i>	
			Acc. sing. fem. <i>dien</i>	
*de/do	dim	Iranian	Nom. pl. masc. <i>dei, di</i>	
		Prussian		
*se/so	sim	Sanskrit	Acc. pl. masc. <i>dins, diens</i>	
*me/mo	μν	Greek		

In Semitic languages, signs of deixis cover mainly demonstrative pronouns, enclitics and other indicators – indices of the speech act. It is on the basis of the actual Present Tense of the speech act that the concept of direct anteriority and direct succession develops, i.e. the verbal category of anteriority, which in IE languages is expressed by forms which have in their composition some indicator of the Present Tense. As a typical example of this we can take Romance forms such as French *j'ai dit* for direct anteriority and *je vais dire*, as well as *je dirai* < Lat. *dicere habeo* – for direct succession. The category of anteriority and the category of succession still belong in this form to the Present Tense of the moment of speech. But by general process of metaphorization the forms of anteriority and succession are transferred to situations removed in time from the speech act, becoming forms of the category of a verbal tense. The transposition of the form of anteriority in the Present (Perfect) to the Past Indefinite and the Historic Past (Aorist) as well as the conversion of the form of succession in the Present to the form of the Future, are processes common to all the IE languages and, evidently, universal processes. (The terms “Perfect” and “Aorist” are used here with the meanings usually accorded them in typological linguistics – “Perfect” meaning a completed action, the result of which lasts as a state in the Present; “Aorist” meaning a narrative form designating an action in the Past, unconnected to the present. In various linguistic theories these terms may have other meanings, cf. “Perfect” in Latin, “Aorist” in Sanskrit.)”.

§6. General and specific laws. Lexical parallel “parens/genitor”. Language is a complex social phenomenon that has its own laws of development, some of which are manifested in the main areas of the language: vocabulary, phonetics, morphology, syntax, etc.; these are the so-called general laws; others operate in one of the layers of language or in border areas.

In this paragraph, we pay attention to how one of the particular laws works in Semitic languages, namely, how the transformation of the Active Participle is carried out in the Present Tense, what prerequisites play an essential role in the design of an effective analytical Perfect, and what is the meaning of opposition action for these processes. We will also consider the question of the possibility of transforming the Passive Present Participle into an Active one and touch on the problem of the relationship between the Active and Passive Voice, and also try to trace the ways of breaking the opposition between activity and passivity in order to find out the possibility of the appearance of an ergative sentence structure in a particular group of languages with the subject in the special ergative case (or in the main case with the prepositional postposition), or with the predicate consistent with its direct object, with the active meaning of the construction itself.

We will be interested in the lexical parallel of “parens/genitor”. The first of these words is well known both from Latin and from the new European languages: English *parents*, Italian *parente*, French *parents*. In Latin *parens* is derived from the verb *pario, peperit, partum* ‘to give birth’; therefore, this word is a substantiation of the Participle (participium praesentis activi) and has the meaning of the name of the doer.

The word *genitor(m)/genitrix(f)* with the same meaning is derived from the verb *gigno, genui, genitum* ‘to give birth’ and differs from the first in its more ancient, but less branched etymology. *Genitor/trix* is also the name of a doer, but it is much older than the ‘parens’ and has correspondences in many ancient IE languages: Skt. *janitr* etc. But the new IE languages, including the Romance languages (except for Italian), probably have lost this word, which once again may testify to the greater antiquity of ‘genitor’ compared to ‘parens’. However, the latter began to lose its position; in the semantic field of kinship it is pushed to the periphery: Spanish *los padres* ‘parents’, but *pariente* ‘relative’. Here we are investigating not the semantics of these words, but the morphological phenomena that contributed to the formation of the category of words with the meaning of the name of the agent based on the Participles.

§7. Opposition action/state. In our opinion, the action/state opposition lies in the process of forming the name of a figure on the basis of Active Participles. The action-inaction opposition seems irrelevant in the first approach to solving this problem, but in fact it deserves consideration, and in the study of linguistic facts, serious methodological difficulties immediately arise. And sometimes there are no firm criteria for determining the boundary where the action ends. The action is conveyed not only by the verb; nouns with equal success can denote action in its development and formation: abstract names of actions in different languages; masdars (nomina actionis) in Semitic languages: in Arabic *suglun* ‘occupation’, *ilmun* ‘knowledge’, ‘science’, *dahabun* ‘departure’, *rahilun* ‘departure’, etc. On the other hand, verbs denote not only an action, but also the nature of the course of an action (singularity/multiplicity, perfection/imperfection, etc.), as well as a state or an action act at the same time: *sleep, rejoice, grieve*.

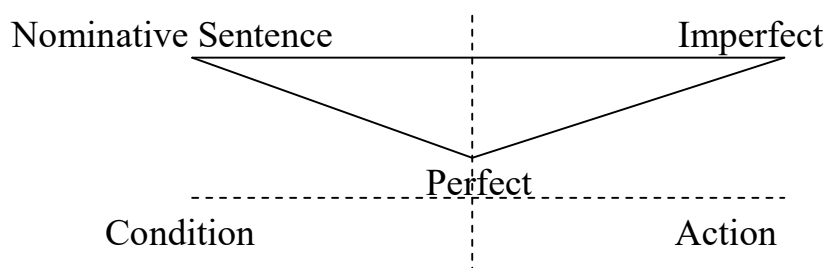
In modern Arabic, by virtue of their internal semantics, many verbs convey a temporary state, a property or constant quality, i.e. we can say that such verbs express a state or quality related to a person grammatically expressed by the subject, but which cannot refer to another person as an object of action. In addition, the state, along with the action and its formation, can be transmitted by extended (derived) stems.

§ 8. The essence of the opposition between the Perfect and Imperfect in Arabic. To trace how the action/state opposition is manifested, it is necessary to investigate the essence of the “Perfect-Imperfect” opposition in Arabic and find out whether it corresponds to the opposition of the Aorist and the Present of PIE. The Arabic Perfect as a productive tense can express a state that has arisen as a result of an action performed in the Past. This is often the case with verbs expressing feelings, sensations, state of mind: ‘*araftu* ‘I knew’, *fahimtu* ‘I understood’. This phenomenon has an analogy in other languages (cf. Lat. *novi* ‘I know’, *memini* ‘I remember’, *odi* ‘I hate’, etc.). The Imperfect denotes an action or state without regard to any moment, i.e. as constantly happening. Thus, the Perfect and the Imperfect in their very essence are opposite in that the Perfect imparts to the action “the shade of the state”, and the Imperfect attributes “the shade of the action to the state”. The Perfect, by virtue of its

semantics, is an unstable formation and is the channel through which the sphere of influence of the verb expands at the name. Therefore, it can be argued with a certain degree of confidence that names denoting an action and state, such as the Arabic Present Participle *fa'ilun*, will eventually turn into pure verb forms, which is demonstrated by the development of this Participle at the Present Tense both in Arabic and in other Semitic languages. By this moment of action, verbal sentences in the Imperfect differ from nominal sentences. If nominal sentences convey the state, as well as the quality and attribute of the object in general, the Imperfect shifts this irrelevant, generalized Present Tense into the sphere of an action. It is not an exclusive feature of the Arabic or Semitic languages. Language categories are formed slowly, and it is not immediately clear that objective reality is fully reflected in them. Therefore, at first they are used with an expansive meaning, mutually replacing each other.

Scheme 1

The ratio of a nominal sentence and a verb with the Perfect and Imperfect



When Arabic was characterized by species-temporal relationships of the verb and complex analytical tense forms have not yet been established, the so-called “Arabic Perfect” with the corresponding actualizers was used to designate both the productive and non-productive Past, as well as the Present and Future Tenses (cf. also with the use in Russian of the Present Tense instead of the narrative Past and Future Tenses). The same is true for the Arabic Imperfect.

Similar processes have to be recognized as valid in relation to the IE language of the period proceeding the period with a clear opposition “Perfect-Imperfect”, which we observe, for example, in Latin. This period refers approximately to the Middle IE and is characterized by the opposition of the Aorist and the Presence, which are analogous to the opposition “Perfect-Imperfect” of the Arabic language.

§ 9. The system of oppositions of the Participles in the Arabic language.

First of all, Active and Passive Participles are related to each other. To this it must be added that the moment of action predominates in Participles and therefore they correspond to the finite forms of the verb: Imperfect and Perfect. Their connection with the Imperfect is clearly manifested in those cases when the Participles, along with the Imperfect, are used to designate the Present-Future Tense (a phenomenon characteristic of many Semitic languages). In the Maalula language, in this case, prefixes are added to the Participle in the Imperfect: *nhopeb* ‘I write’, *chopeb* ‘you write’, which would correspond to Arabic if it had a conjugated Participle category,

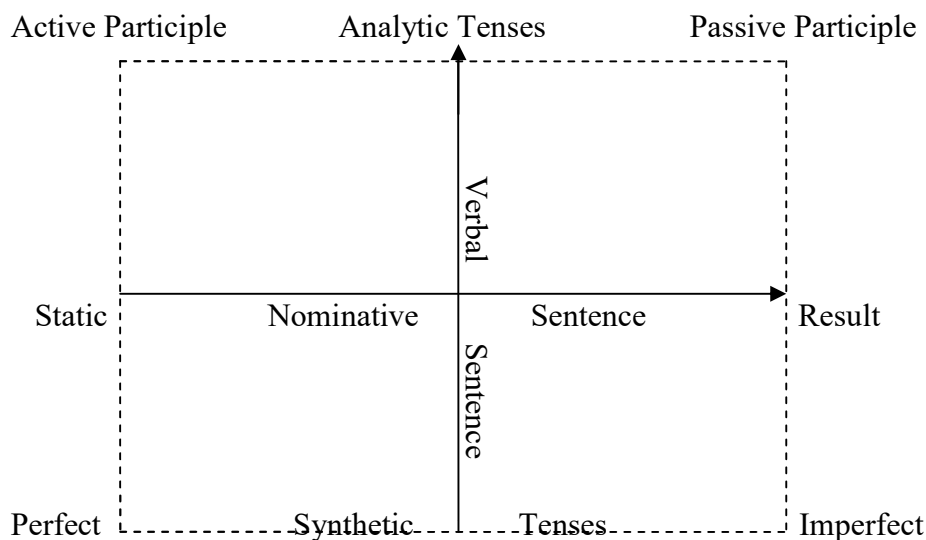
*'a-ka-tib-u, ta-katib-u. In other languages, Active Participles in conjunction with the verb *to be* are used to denote the Perfect; for example, in the Tigre *māse*, *hallēkō* 'I came' (*halle* 'to be'). Sometimes in such cases, an auxiliary verb is combined not with a Participle, but with an Infinitive, as in Amharic. Passive Participles, due to the inherent passivity of the meaning of perfection, approaching the finite forms of the verb, correlate with the Passive Perfect, as well as the Imperfect.

Thus, by its original meaning, the Active Participle approaches the Imperfect, while the meaning of the state, characteristic of its deep structure in the Past, is obscured or disappears, as a result of which the Active Participle in some Semitic languages is sometimes identical to the Imperfect.

Acting as a predicative function in a nominal sentence, Participles (Active Participles are more commonly used) enter into a new opposition with the nominal sentence as a whole, in which the moment of static prevails. Thanks to this function of Participles in the nominal sentence, the latter is even closer to the Imperfect – the point of their contact is the designation of the Present Tense. But the main thing in the meaning of the Imperfect and the nominal sentence is not the moment of community, but the moment of difference – the formation of the opposition between static and non-static (dynamism). This moment of difference is also manifested in the opposition of the nominal sentence – the Perfect. The possibility of designating a state to some extent brings a nominal sentence and the Perfect together, but in the latter state it is shifted towards efficiency. The nominal sentence merges with the Perfect when denoting a state in terms of the Past. In this case, the timeless verb *kana* 'to be' is used in the nominal sentence, which neutralizes the meaning of the generalized Present Tense inherent in the nominal sentence, switching the nominal sentence to the sphere of the Past. Compare: '*ana talibun* 'I am a student' and *ana kuntu taliban* 'I was a student'. In both Russian and Arabic, the switching of the nominal sentence to the sphere of the Past is accompanied by a change from the nominative predicative to the instrumental (Russian) or accusative (Arabic) predicative (see Scheme 2).

Scheme 2

Converting Participles to the Imperfect and Perfect (synthetic-analytical cycle)



§ 10. Manifestation of the category of state at the syntactical level. The category of state also appears at the syntactical level. As a rule, the predicate of a nominal sentence is in the nominative case. The category of state inherent in the nominal sentence dissolves, and the attribute or quality of the object described by the nominal predicate comes to the first position. The connection of concepts (as well as the expression of the meaning of the state, attribute, quality of objects) is carried out in Arabic by the separation of names in the state; and the nominal predicate, in contrast to the subject, is indefinite. In Russian, the same phenomenon is carried out by opposing the degree of abstractness of the subject and the predicate.

Thus, in the Russian language we have two different nominative cases: the nominative subject (*Student chitaet*) and the nominative predicative (*On student*). In the last example, the nominative case is not used in a predicative meaning, but the predicative use of the name marks the nominative case, which is expressed by the instrumental predication (*On byl studentom*). Consequently, we can compare the nominative predicative of the Russian language with the predicative name of the Arabic language in an indefinite state, rather than two nominative cases of the Russian language.

The meaning of a state is most clearly outlined in Arabic (as well as in Russian) when the name is used semi-predicatively (i.e., as a secondary predicate). The name, being related to the verbal predicate, presupposes the subject of the given sentence as its subject, but the semi-predicate (secondary predicate) itself denotes the circumstances. The Arabic language also knows the second predicative case (case of the state). This role is carried out by the accusative.

§11. Suppletivism of the auxiliary verb. In many modern languages, there is the use of several auxiliary verbs in approximately the same meaning. Their interchangeability sometimes reaches such an extent that they are perceived as different forms of the same verb (suppletivism). Nevertheless, historically, these are different formations involved in the service of full verbs or replacing a verb in a nominal sentence.

In IE studies, there is an extensive literature on this issue. Unlike other authors, we link the change in the semantics of the verbs of being with a change in the temporal system of the verb, which in the future, we believe, will make it possible to trace the evolution and transformation of typologically different language systems.

In antiquity, a verb was the main feature of a complete sentence and predicative adjectives of many modern languages, which formally coincide with the attributive ones and described by means of the linking verb *to be* (for example, German *kranken sein*, French *être malade* ‘to be sick’), constituted a special category of qualitative verbs (cf. Arabic *marida* ‘to be sick’). It is not difficult to come to the conclusion that at some period of linguistic development the connective verb in its modern meaning was absent. This conclusion can be reached by a different kind of reasoning. A significant number of existing languages have pure nominal sentences, which are characterized by the regular omission of a connective verb, most often in the Present Tense. These are Arabic, Hungarian, Malay, Russian and many other languages. It is

known that in terms of diachrony connective nominal sentences are more spread in the language. Consequently, a pure nominal sentence characterizes the most ancient state of the language, and languages with a similar sentence construction reflect the ancient state.

A connected verb is usually omitted in sentences denoting the identity of two concepts reflected in the subject and predicate sentences, as well as in sentences that are close to them in meaning, expressing the submission of a particular concept under a general category. Obviously, from the same type of sentences, the distribution of the connective verb begins in the diachronic sense. Apparently, the meaning of identity should be recognized as the main meaning of the auxiliary verb *to be*. The semantics of such a verb approaches zero, and its main purpose is to be an indicator of the predicative use of a name.

A sentence in inflected languages conveys the flow of information from the informant to the recipient and contains an internal characteristic of the members of the sentence: if the name is in the main case, it is usually the subject in the sentence; if a word has a verbal inflection, it serves as a predicate in a sentence, etc. The main members of the sentence do not need special verbal units as their representatives.

In addition, the main (often secondary) members of the sentence have special words, which can be called “indicators of the corresponding members of the sentence”. In Tagalog, the subject, as a rule, is formed by the indicator *ang*, the predicate indicator is the formant *ay*, the object is introduced by the indicators *ng* and *sa*. Thanks to these indicators, ambiguity in the understanding of sentences consisting of the same significant words is eliminated.

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